

## ABSTRACT

5 A motor generating cogging torque has one-quarter the cycle of basic cogging torque and an extremely small absolute value. First, in order to reduce the cycle of the cogging torque to one-half the cycle of the basic cogging torque, a basic configuration of the core is determined by setting opening angles of its slots to an appropriate electrical angle ranging from  $80^\circ$  to  $95^\circ$  and from  $20^\circ$  to  $35^\circ$ . Next, to  
10 produce the above-mentioned effects, an angular displacement of one-quarter the cycle of the basic cogging torque is provided in the motor. Furthermore, polarizing the core with a skew angle equal to one-half or less the cycle of the basic cogging torque at the same time allows the cogging torque to be reduced effectively while decrease in efficiency is minimized.

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